



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

C45-4-4A
Job Sheet 191779



DAS
69
9-89

Part No: C45-4-4A

Job Qty: 8 pcs

Part Name: C45 Load Beam Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 3/8/19

Job Tracking No:

Due Date: 4/30/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG C45-4-4A REV 20 IPP REV A 18.02.13 NEW ISSUE FK VERIFY DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
90	Rework <i>startup.</i>	8 pcs	4/30/19	4/30/19	0.00	0.00	Conventional Mill - 1	<i>APR 19-3-22</i>
95	Rework	8 pcs	4/30/19	4/30/19	0.00	0.00	QC2 Machining-2 <i>QC-63</i>	
100	Small Fab - 1 <i>B4B</i>	8 pcs	4/30/19	4/30/19	0.08	0.53	Small Fab - 1 <i>X-LOAD 1</i>	<i>AP 2019/03/27</i>
							Small Fab - 2	<i>NICHEL</i>
							Small Fab - 3	
							Small Fab - 4	
							Small Fab - 5	
							Small Fab - 6	
							Small Fab - 7	
110	QC 5	8 pcs	4/30/19	4/30/19	0.00	0.00	QC 5 - 10	
							QC 5 - 12	
							QC 5 - 17	
							QC 5 - 18	
							QC 5 - 19	
							QC 5 - 22	
							QC 5 - 24	
							QC 5 - 3	
							QC 5 - 42	
							QC 5 - 43	
							QC 5 - 49	
							QC 5 - 51	
							QC 5 - 58	
							QC 5 - 68	
							QC 5 - 9	
							QC 5 - 50	
							QC 5 - 30	
							QC 5 - 40	
130	Outsource - 15 - Nickel Plate	8 pcs	4/30/19	4/30/19			GRO002-VC 10	
140	Packaging 2-1 - Receive - B4B	8 pcs	4/30/19	4/30/19	0.00	0.00	Packaging 2 - 1 - B4B	
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	

				Packaging 2 - 5 - B4B	
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	df APR 26 2019
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
150 QC 6	8 pcs	4/30/19	0.00 0.00	QC 6 - 42	
				QC 6 - 9	
				QC 6 - 68	DAS MAY 02 2019 68
				QC 6 - 61	9-89
160 Packaging 3-1 - Stock - B4B	8 pcs	4/30/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	DAS 28 9-89
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	

Part Op **100** - (Small Fab) ASSEMBLE AS PER DWG

Descriptions: **110** - (QC5- Inspect part completeness to step on W/O)

130 - Outsource 15 (Outside Processing - Nickel Plate) -Issue P/O to Groupe Attech: P/O _____ -Nickel plate, Q.C- N-290, Class 2, Grade C -Nickel Plate .0009-.0011 - Certificate of Conformity is required

140 - (Receive & Inspect for Damage & Mat'l Certs)

150 - (QC6- All purchased or subcontracted products)

160 - (Identify as per dwg & Stock Location: _____)

Part / Item	Component Name	Quantity	Operation	Container
C45-4-2	Trunnion, Load Beam	8 pcs (1 ea)	100-Small Fab - 1	5125611
C45-4-4	Load Beam	8 pcs (1 ea)	100-Small Fab - 1	5056933

Job Allocations			
Operation	Component Part	Required	Allocated
100-Small Fab - 1	C45-4-2	8	0
	C45-4-4	8	0

Specifications could not be found.

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 04/01/19



Container No: S166206



Part: C45-4-4A

Job No: 191779

Serial No/Batch: S166206

Revision: 20

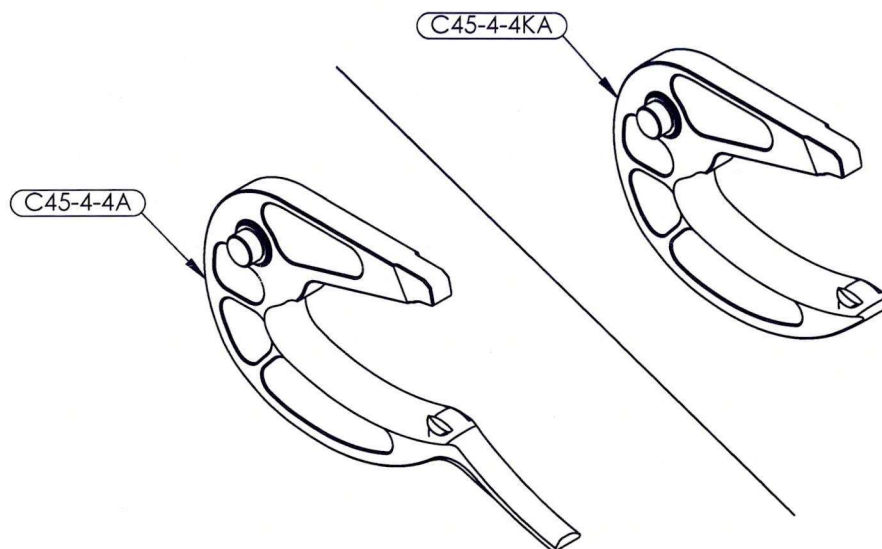
Inspector:

Exp Date:

Instructions:

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
15		AS RELEASED BY CANAM.	9/18/2012	
16		CH'D DESIGN, REMOVED PIN AND ADDED FLAT TO TRUNNION AND LOAD BEAM.	10/30/2012	JAG
17		ADDED NICKEL PLATE BAKE NOTE.	12/5/2013	JAG
18	14-0126	CH'D TITLEBLOCK WAS RED BARN IS DART. C45-4-2 ADDED BAG & LABEL NOTE. C45-4-4 ADDED MACHINE ENGRAVE NOTE. CH'D TOLERANCE ON NON-CRITICAL DIMENSIONS.	8/13/2014	DPD
19	15-0099	UPDATED TO NEW DRAFTING STANDARDS. C45-4-2 CH'D HEAT TREAT WAS RC 34-37 IS RC 42-46. C45-4-4 & C45-4-4K CH'D MAT'L WAS 4340 IS 4140/4142. C45-4-4 DELETED DIMS 2.75, 2.05, 1.43, 1.13, .97, .94, .56, .57, 1.47, .333, R.31, R.50, R.38, R.38. C45-4-4KA AND C45-4-4K ADDED TO DRAWING FOR KEEPERLESS OPTION. CH'D TOLERANCE ON NON-CRITICAL DIMENSIONS.	5/8/2015	RJC
20	17-0133	C45-4-2 DELETED DIM 2X R.03.	6/5/2017	RJC



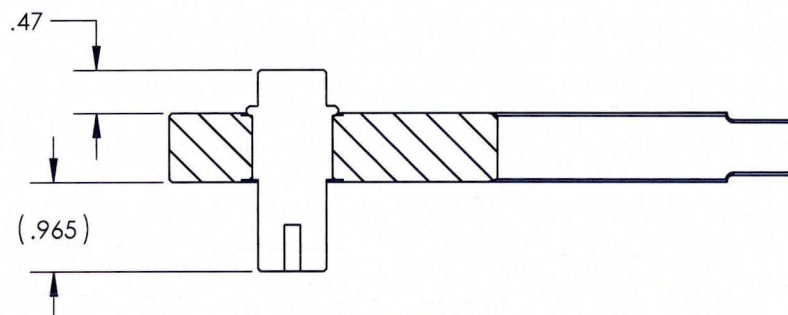
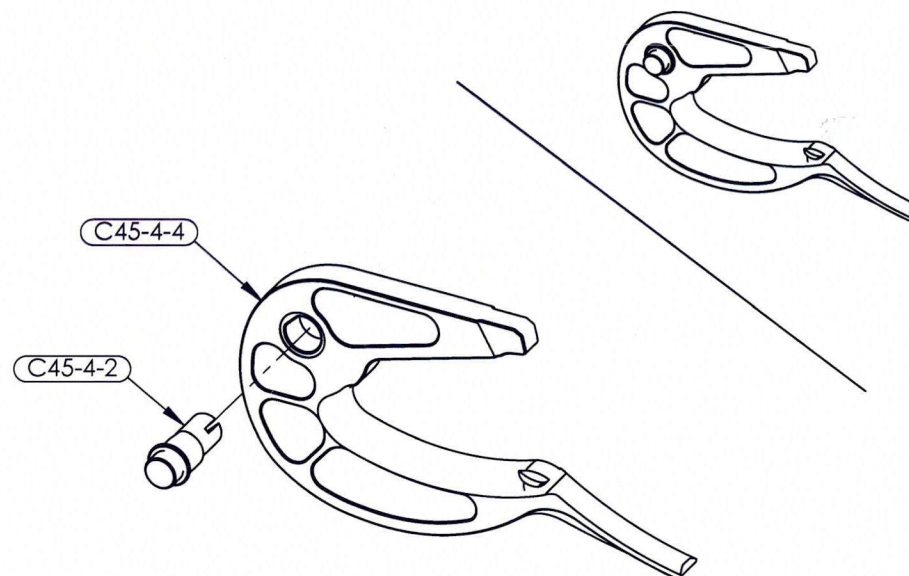
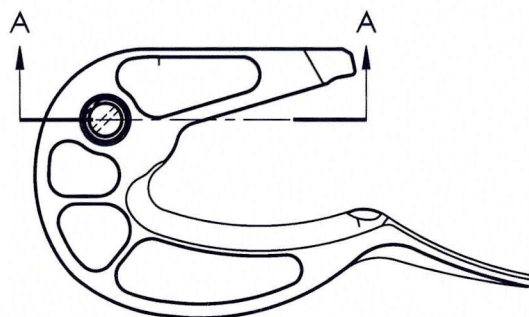
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 19177R nls
19-03-08

DART AEROSPACE																							
TITLE C45 LOAD BEAM ASSEMBLIES																							
DWG NO. C45-4-4A /C45-4-4KA	REV 20																						
<table border="1"> <tr> <td>MAT'L</td> <td>UNLESS OTHERWISE SPECIFIED</td> </tr> <tr> <td>HEAT TREAT</td> <td>DIMENSIONS ARE IN INCHES</td> </tr> <tr> <td>FINISH</td> <td>.XXX ± .005 FRACTIONS ± 1/8</td> </tr> <tr> <td></td> <td>.XX ± .01 ANGLES ± 5°</td> </tr> <tr> <td></td> <td>.X ± .1 SURFACES = 125/</td> </tr> <tr> <td>SPEC</td> <td>1. BREAK ALL SHARP EDGES .015 x 45° OR .015R</td> </tr> <tr> <td>DRAWN BY: CLOUGH</td> <td>2. DIMENSIONAL LIMITS APPLY AFTER PLATING</td> </tr> <tr> <td>CHECKED: DD 06/05/2017</td> <td>3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009</td> </tr> <tr> <td>OPPS APPR: AA 06/06/2017</td> <td>USED ON MODEL</td> </tr> <tr> <td>QA APPR: JL 06/14/2017</td> <td></td> </tr> <tr> <td>APPROVED: JAG 06/15/2017</td> <td></td> </tr> </table>		MAT'L	UNLESS OTHERWISE SPECIFIED	HEAT TREAT	DIMENSIONS ARE IN INCHES	FINISH	.XXX ± .005 FRACTIONS ± 1/8		.XX ± .01 ANGLES ± 5°		.X ± .1 SURFACES = 125/	SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	DRAWN BY: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING	CHECKED: DD 06/05/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	OPPS APPR: AA 06/06/2017	USED ON MODEL	QA APPR: JL 06/14/2017		APPROVED: JAG 06/15/2017	
MAT'L	UNLESS OTHERWISE SPECIFIED																						
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OPPS APPR: AA 06/06/2017	USED ON MODEL																						
QA APPR: JL 06/14/2017																							
APPROVED: JAG 06/15/2017																							
SCALE 1:4	DATE 5/7/2015																						
SHEET 1 OF 6																							

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
	X		C45-4-4A	1	C45 LOAD BEAM ASSY.			2
1	1		C45-4-2		TRUNNION	4140/4142		3
	1		C45-4-4		LOAD BEAM	4140/4142		4
X			C45-4-4KA	1	C45 LOAD BEAM KEEPERLESS ASSY.			5
1			C45-4-4K		C45 LOAD BEAM KEEPERLESS	4140/4142		6
ASSY C45-4-4KA	ASSY C45-4-4A							

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
15		AS RELEASED BY CANAM.	9/18/2012	
16		CH'D DESIGN, REMOVED PIN AND ADDED FLAT TO TRUNNION AND LOAD BEAM	10/30/2012	JAG
17		ADDED NICKEL PLATE BAKE NOTE	12/5/2013	JAG



SECTION A-A
SCALE 1 : 2

C45-4-4A

C45 LOAD BEAM ASSY.

NOTE:
1. NICKEL PLATE .0009 - .0011, BAKE AFTER PLATING.

DART AEROSPACE	
TITLE C45 LOAD BEAM ASSEMBLIES	
DWG NO. C45-4-4A / C45-4-4KA	REV 20
MAT'L HEAT TREAT FINISH SPEC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125°
DRAWN BY: CANAM	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DD 06/05/2017	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: AA 06/06/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: JL 06/14/2017	USED ON MODEL
APPROVED: JAG 06/15/2017	
SCALE 1:4	DATE 11/17/2009 SHEET 2 OF 6

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043048



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO043048
PO Date: 4/1/19
Due Date: 4/5/19
Purchase Order Revision:
Revision Date:
Ship-To Contact: Phone:

Attention: Grenon, Sylvie

Via: Ground
Pymt Terms: Net 60

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	191779	C45-4-4A	C45 Load Beam Assembly Outsource15 (Outside Processing - Nickel Plate) -Issue P/O to Groupe Altech: P/O -Nickel plate, QQ-N-290, Class 2, Grade C -Nickel Plate .0009-.0011 - Certificate of Conformity is required	Firmed	-	4/5/19	7 pcs	0 pcs	7 pcs	\$24.50/pcs	\$171.50

X7

APR 26 2019

DP

DAS
68
9-89

Line Item Note *** NEED BACK APRIL 05,2019 ***

2	192152	C45-4-4KA	Load Beam Keeperless Assembly -Issue P/O to Groupe Altech: P/O -Nickel plate, QQ-N-290, Class 2, Grade C -Nickel Plate .0009-.0011 - Certificate of Conformity is required	Firmed	-	4/5/19	4 pcs	0 pcs	4 pcs	\$15.20/pcs	\$60.80
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X4

APR 26 2019

DP

Line Item Note *** NEED BACK APRIL 05,2019 ***

Grand Total: \$232.30



Certificat de Conformité / Certificate of Compliance

(018136-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

018136 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
03-Apr-2019		SPARTAKOS BOUNTOURIS		PO043048				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	C45-4-4A Rev.	C45-4-4A NICKLE PLATE, QQ-N-290 CLASS 2, GRADE C NICKLE PLATE .0009-.0011 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200] 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200] 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200] 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200]	E-NICKEL ALUM CH	7	7	0	0	68 9-89
2	C45-4-4KA Rev.	C45-4-4KA NICKLE PLATE, QQ-N-290 CLASS 2, GRADE C NICKLE PLATE .0009-.0011 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200] 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200] 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200] 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200]	E-NICKEL ALUM CH	4	4	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043048



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

A handwritten signature in black ink, appearing to be "Patrick Lussier", written over the bottom right of the Order Notes section.

Plex 4/2/19 1:38 PM dart.Lussier.Patrick